#5

On Indigestion,

or

Dyspepsia.

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In the whole catalogue of diseases to which human nature is liable, few will be found more widely prevalent, or more productive of unpleasant consequences, than that which is now about to claim our attention. We should, indeed, from the delicate structure of the stomach, from its inevitable exposure to irritating causes, and from its connection by sympathy with other parts of the body, naturally infer, that a derangement of its functions must be of very frequent occurrence. Nor have we ~~[illegible]~~ grounds less firm for the belief, that such a derangement ~~would~~ must be attended with evils of as great magnitude as almost any to which the human system is subject. For so close is the dependance of every part of our frame upon that organ from which it derives nourishment and increase, so firm is the bond of sympathy by which the stomach is united with the rest of the body in one harmonious whole, that a disease affecting the digestive function cannot but occasion a disturbance in all the others. Accordingly we find that Indigestion, tho' not immediately dangerous, is yet accompanied by the symptoms of many other diseases, and, in the end, if not checked by art or nature, is apt to bring on a train of consequences which will conduct the patient to the grave. Besides, when the stomach is so diseased ~~in~~ as to perform improperly its part in supplying nourishment to the body, debility will necessarily follow; and the system, unable to withstand the attacks of morbid causes, will

yield to a force, which, if fortified with strength, it would have successfully resisted. But the remote danger of a fatal issue, is one only of the evils which follow in the train of Indigestion. By this disease, when it has arrived to a certain height, all the energies of the mind are prostrated; and the patient is not unfrequently thrown into such an abyss of despondency, that he is tempted with his own hands to destroy a life which he has been rendered incapable of enjoying. So situated, it is impossible that he should exercise to advantage the mental powers with which he may have been endowed. He is incapacitated from performing the duties of a citizen to his country, of a private man to his neighbour, of a creature to his Creator. When we consider that these effects are most usually produced in that class of men, who, possessing of strong natural powers, have exerted themselves by study and reflection to improve them, we cannot but see, in its full force, the necessity of endeavouring, with all our strength, to conquer a monster so destructive to the improvement and happiness of man. Fortunate is it for the human race, that we are in possession of means competent to so desirable an end. — A detail of these is the object of the present essay, which, though it may not obtain the praise for originality, will, I hope, have the merit of truth and accuracy. Before proceeding, however, to an account of the treatment, it comports with the design of the essay, that I should ~~say~~ ~~that~~ speak at some length on the causes and symptoms of Dyspepsia. —

First.

Causes of Indigestion.

Cullen observes that the "proximate cause" of Indigestion is "an imbecility, loss of tone, and weaker action in the muscular fibres of the stomach". How a debility of the muscular fibres can give rise to the symptoms of this complaint, I am at a loss to determine. I can much more easily conceive that they result from a diseased action of the secretory vessels, producing a gastric liquor, either deficient or superabundant in quantity, or vitiated in the properties by which it acts on the food. But whether the symptoms arise from debility of the muscular coat, or from an unhealthy condition of the secretory vessels, certainly neither of these can be the "proximate cause" of Dyspepsia. For in this case, what is the disease itself? is it constituted by the symptoms taken collectively? Such an opinion would be absurd. The disease is that which produces the symptoms, and, in the present instance, is nothing more nor less than what is generally denominated the proximate cause. But to say that the effect and its cause are the same, is to contradict common sense, or at least to introduce great want of precision into language. Indeed the term proximate cause should, I think, be entirely dispensed with in Medical nomenclature; as it is not only

superfluous, but also calculated to excite confusion in the mind of the student. I shall, therefore, proceed to the consideration of what may truly be denominated the causes of Indigestion. The only methods in which the stomach can be affected by noxious agents are two; – either by their immediate operation on itself, or through the medium of that sympathetic connection which exists between it, and the other parts of our system. Hence we may rank the causes under two heads, corresponding to their manner of action; and first let us enumerate some of those which act directly on the stomach.

I. 1. One of the most frequent causes of Dyspepsia, is an indulgence in the use of articles which, when admitted into the stomach, stimulate it beyond the natural point. It is, I believe, an established principle of Physiology, that in proportion to the frequency & degree of excitement, is the diminution of the capacity for being excited; and when a part has become habituated to the action of stimulants, it not only loses the power to perform of itself its appropriate function, but is at length excited with difficulty by the stimulants themselves. Hence none are more liable to the complaint of which we are treating, than those who are in the habit of using immoderately either spirituous liquors or opium. Even tonics, when long continued, will sometimes wear out the powers of the stomach. On the same principle may we explain the operation of various other articles, such as cinchona, coffee, tea &c; which, when ~~in~~ often employed, are by no means the least efficient causes in producing Indigestion.

2. A diet of difficult solution in the gastric liquor may also be

ranked among the causes of this complaint. It must be plain to all, from the known principles of the animal economy, that when the stomach is filled with food of such a nature, it will exert itself to overcome the difficulty, and thus experience the same result as though it were excited by articles merely medicinal. Exhaustion follows excessive exercise as necessarily as depression follows excitement. Food of difficult solution is injurious in another way. Remaining a long time undissolved in the stomach, it must irritate the internal coat of that organ, and of consequence produce a disease in the vessels by which the gastric juice is elaborated.

3. Distention of the stomach either with food or drink is a third cause which may operate in producing a derangement of the digestive function. Independent of the mechanical injury, the same consequence ~~must~~ will follow from overloading the stomach with aliment even of easy digestion, as from the use of stimulants, or of indigestible food. In every instance the powers of this delicate organ are exerted above the natural point, and, like the wave which has been raised above its usual level, must, when the force is no longer applied, sink as far below.

4. It has long been remarked that certain emotions of the mind give rise to peculiar sensations about the epigastric region, and, when extravagantly indulged, produce in the actions of ~~that o~~ the stomach, a derangement, which, in every respect, resembles the disease occasioned by the causes above mentioned. How it is that such an effect is experienced, remains, and, I think, ~~an~~ will ever remain among the mysteries of nature. But that an immediate connection does exist between

the stomach and the depressing emotions, such as Grief, melancholy, anxiety &c, appears both from our referring, when under their operation, a disagreeable sensation to the epigastrium, and also from the circumstance that Dyspepsia almost always induces a dejected state of mind. To resort to the general system as the medium by which melancholic emotions act on the ~~mind~~ stomach is not only unnecessary, but is even to contradict what experience must ~~have taught every one who has~~ manifest to every attentive observer.—

II. We now proceed to consider the 2nd set of causes which produce indigestion, or those which act ~~directly~~ on the stomach sympathetically.

1.— Whatever either directly or remotely debilitates the body, ~~must~~ may also debilitate the stomach, and consequently may give rise to Dyspepsia. Hence diseases of various kinds; excess in the indulgence of the Venereal appetite; frequent depletion by bleeding, purging &c.; excessive exercise; sedentary habits, especially when combined with intense study, and anxiety of mind; with many other causes of a similar nature, are often justly accused of inducing this complaint. Students, perhaps, are more liable to it than any other class of ~~people~~ men; for they generally use very little bodily exercise, are constantly fatiguing their mind by too close an application to study, and, if we may believe the accounts of physicians, are apt to give way to a practice, which, though it may be indulged with secrecy, is yet very injurious to the health both of the soul & the body.—

2. The above causes are such as owe their efficacy to the sympathetic connection

between the stomach and the general system; as ~~close a~~ a close connection exists also between that organ and particular parts of the body; ~~and hence~~ all ~~so~~ those causes which derange the healthy action of these parts, derange also that of the stomach, and consequently are productive of Indigestion. Thus, warmth relaxes the skin, and has so great an influence over the function of digestion, that persons in whom this ~~function~~ is badly performed are almost invariably worse in Summer than in winter. — Inflammation of the liver, and of the other viscera ~~are~~ is frequently accompanied with Dyspepsia. Nothing is more common than for this disorder, in women, to attend any derangement of the operations peculiar to the sex. In pregnancy, in retention of the menses, and after these have ceased in females somewhat advanced in life, Indigestion is very often experienced. To this, indeed, may be attributed, in a great measure, all those nervous complaints with which women in genteel life are so apt to be affected. —

Second.

Symptoms of Indigestion.

The symptoms of Dyspepsia are so numerous and diversified, that to enumerate and arrange them all, would require not only more time than can now be afforded, but also more judgment and experience than can have fallen to the lot of one who has but just entered within the threshold of Medical Science. Enough, however, shall be mentioned to characterize the disease; and more than this can hardly be expected. Of the symptoms which I shall enumerate, many are absent in any one case of indigestion, and sometimes, perhaps, very few are present: but as they all derive their origin from the same source, and one of them in any instance, is not to be found without several of the others, they may, I think, with propriety be ranked under the same general head.—

Though in a common case of the complaint there is little acute bodily suffering, yet the patient almost always experiences a disagreeable sensation, sometimes described as that of hollowness, sometimes amounting to a dull kind of pain, which occupies the region of the stomach, often ascends into the breast, especially on the left side, and not unfrequently extends down the arm. This sensation, peculiar to the disease of which we are treating, occurs in some persons before meals, particularly

before breakfast; in others after they have been eating food of difficult digestion; arising, it is probable, in the former instance from the stimulant action of an increased quantity of gastric liquor on the internal coat of the stomach; in the latter, from the irritation of the same coat occasioned by the presence of food which there is not sufficient of that liquor to dissolve with the usual rapidity. What goes to confirm the above supposition is, that in those instances where the patient experiences pain with an empty stomach, he also, in general, has a good appetite; and, on the contrary, when he is much troubled after eating, he seldom feels a strong desire for food. The sensation, concerning which we have been speaking, gives rise to the inveterate habit of sighing for which some persons afflicted with indigestion are remarkable.—

Another symptom is nausea, and a vomiting of almost any article which may have been taken into the stomach. Dr. Parrish, of whom I shall ever boast as my preceptor, afforded in himself an exemplification of this ~~rule~~ truth. He has informed me, that, while yet a young practitioner, he was severely afflicted with Dyspepsia; and, among other circumstances, that he was unable to retain on his stomach any article of diet, except some preparation of beef. In many instances the stomach is very capricious in its choice of food, and setting all general rules at defiance, adapts itself to a species of diet which we should consider in common as exceedingly pernicious. I have heard of a Dyspeptic lady who could eat nothing but Indian-dumplings, and of another with whom cabbage agreed better than any other article.

Eructations sometimes sour, sometimes extremely acrid & scalding;

flatulence, & frequent ~~belching~~ discharge of air by the mouth; a hot & disagreeable breath are also accompaniments of Indigestion. The bowels are generally, though not always ~~not~~ costive: sometimes they are regular, and sometimes in a looser condition than natural.

Head-ache; vertigo; perversion & dimness of views; palpitations of the heart; difficulty of breathing; a sense of constriction or uneasiness in the throat; transient pain in the back of the neck, shoulders &c, perhaps more imaginary than real; coldness in the feet; with others of a similar nature, are symptoms not unusually to be found in dyspeptic cases, and arising from the sympathetic connection of the parts affected with the stomach.

There is generally an emaciation of the body; paleness of the surface; flushes of heat; some febrile action, especially in the night; accompanied, in the morning, with a disagreable taste, & a furred tongue.

The system is often extremely sensitive, and apt to be disordered by the slightest emotion. Hence arise the sleepless nights of which those who are affected with Indigestion sometimes complain. The hearing of a pleasant or melancholy piece of news, the occurrence of any uncommon event, even the unexpected presence of a friend or enemy, are circumstances sufficient to give such a shock to the frame, that it cannot for a long time & without much difficulty be composed into sleep.

But among all the attendants of Indigestion, there is none, I believe, more constant, nor any one half so troublesome as a dejected mind. How often do we see the victim of this disease, obstinately blinded to the truth, foreboding to himself nothing but evil, neither enjoying the present, nor with any prospect of enjoying the future! He constantly fancies himself under the influence of some mortal

disease; and, if a student of medicine, or allowed to peruse medical works, there is not a complaint with which at one time or another he does not think himself affected. Consumption is ~~generally~~ the disorder which patients of this kind are most apt to dread. Indeed between the commencement of Phthisis Pulmonalis and some cases of Dyspepsia there is not a little resemblance. For in the latter as well as in the former, there is sometimes cough, & often pain in the breast. Perhaps the best means of distinguishing them, is the very circumstance of which we were just speaking. It is almost proverbial that consumptive patients retain hope & cheerfulness to the last, while it is equally true that those under the influence of Dyspepsia despair from the beginning.

It yet remains to mention some affections of the stomach which, though not always treated of under the head of Indigestion, are, nevertheless, very common attendants of that complaint. I allude to Gastrodynia, Pyrosis, & Cardialgia. The 1st. is supposed to be a spasm of the muscular coat of the stomach, and is, perhaps, closely allied to the painful affection of that organ which takes place in atonic & retrocedent gout. The nature of the 2nd. is not well understood, and much difference of opinion has existed relative to its cause. It occurs most commonly in the female sex, and is attended with a severe pain & sense of constriction in the stomach, which are followed & relieved by the discharge of a thin fluid resembling water. Of the three affections, Cardialgia is, perhaps, the most prevalent. It consists in a burning sensation about the region of the heart, and is supposed to depend upon the presence of acid in the stomach, occasioned either by the fermentation of the food, or a vitiation of the gastric juice.

Third

Treatment of Indigestion

Before entering upon the treatment of Indigestion, we should always recollect, that in the several parts of our body there is a natural elasticity, by which, when diseased, they have a constant tendency to regain their former condition; and that frequently no more is required of the physician than to remove the resisting cause. But at the same time, we should not forget that the bow long bent looses at length its spring, and that some extraneous means are necessary to restore it to its primitive state. The system, after having been diseased for a great length of time, acquires a new habit, and, even though the primitive cause should be done away, will continue to be affected in the same manner, unless some powerful means are employed to bring it back to a healthy condition. Keeping our eye fixed on these truths we shall be enabled to see with clearness the course to be steered in order to gain the desired port. The first point which should claim our attention is the removal of the causes to which the disease may owe its continuance; the second is to assist the operations of nature, if, by long controul, she has lost her native & inherent energy. According to these indications, the treatment naturally divides itself into two parts; and we will now proceed to give our attention to the first. —

I. The removal of the causes by which the disease was occasioned or is continued. — To repeat under the first head all the varieties of circumstances which may produce or continue the complaint which we are now considering, would be entirely superfluous; for any man of common sense must know in what manner the greater part of them should be avoided. Of some, however, it is necessary to treat with minuteness. A want of Exercise, and an improper employment of Diet are two circumstances which have greater effect in protracting Indigestion, than all the other causes united; and, if we can point out the proper method of shunning the former and of regulating the latter, we shall have advanced very far towards accomplishing our present purpose. Afterwards it will be necessary to say a few words relative to the removal of certain attendants of Dyspepsia, which, as long as they remain, have a tendency to aggravate the complaint, and may, therefore, be considered as causes of its continuance. — The 1st. part of the treatment, then, divides itself into 3 inferior parts; - viz. the consideration of 1st. Exercise, 2nd. Diet, and 3rd. of some attendants of Indigestion which act as causes of its continuance.

1st. Of ~~Diet~~ Exercise. A certain portion of exercise is natural to man; and a want of it is, as much as any other cause, productive of Indigestion. When, therefore, we recommend its employment in this disease, we prescribe it, not as a medicine for the purpose of giving tone to the stomach, but as one of those circumstances on a combination of which the health & even existence of man depend.

Too much exercise, however, is, perhaps, as injurious as too little; with this difference, that the latter debilitates the system directly, the former, like all stimulants, by producing previous excitement. A person under the influence of Dyspepsia should be careful to accommodate the degree of Exercise to his strength; and should never proceed so far as to produce much fatigue and consequent exhaustion. —

The manner of using Exercise is also worthy of consideration. Riding on horseback is, perhaps, the best method to which a person not ~~so~~ greatly debilitated can resort. Indeed nothing is more successful in the cure of Indigestion than a journey in this way; and I can venture to say that few of those who are accustomed to such travelling are afflicted with the complaint. But some are too weak to bear the jolting of a horse. For these motion of a gentler kind, such as riding in carriages, sailing, walking &c., should be recommended.

But the most important consideration relative to exercise, is ~~the best~~ of the time at which it may be employed with the greatest advantage. Relative to this point, there is, I believe, some difference of opinion. To exercise early in the morning it may be objected, that the nutriment by which our strength is supplied has been ~~exhausted, and for a time~~ exhausted; and that exertion, ~~would~~ at such a time, would be like an attempt ~~in an infa~~ to walk alone, in one who had always been accustomed to lean on a staff for support. I know several, and am myself among the number, in whom much exertion on an empty stomach almost invariably produces head-ache, and nausea; and for a time, at least, aggravates the symptoms

of Indigestion. But if exercise on a stomach entirely empty is injurious, it ~~should also be avoided by Dyspeptic patients after a full meal~~ is no less so when the stomach is loaded, and should, therefore, never be employed by Dyspeptic patients after a full meal. Indeed nature seems to have pointed out a practice directly opposite; for not only the human species but also many of the inferior animals, after having eaten heartily, almost always feel ~~a~~ heavy, and disposed ~~to the~~ for sleep. The reason for this operation of nature is not, I think, obscure. Digestion is one of the most important functions of the body, and, from our habit of taking food at stated intervals, must be carried on ~~at stated intervals~~ with greater activity, and consequently requires a greater supply of nervous influence at one time than another. To afford this supply, the other functions, especially those which have been denominated animal, receive a less share than usual; and a disposition to sleep is the consequence. But we need not resort to theory to prove that the practice of taking exercise on a full stomach is injurious to the health of Dyspeptic patients. In those who are accustomed to discharge their food by the mouth, any exertion immediately after eating always aggravates the complaint; & I have been been informed by one affected in this way, that if he ~~could~~ remain quiet for 1 or 2 hours, he could generally retain what he had swallowed. The practice of sleeping after dinner, so much reprobated by some as an idle indulgence, is, I believe, not only natural, but also conducive to health and soundness of intellect. It would be a grand improvement effected by true philosophy, if, instead of making our principal meal of dinner, we should renew the old

Roman custom of deferring it till night; for we should then have the whole day before us for business or study, and without breaking in upon these, might, with advantage to our health, appropriate the evening to conviviality, and the night to rest.

2nd. Diet.

We have now come to that part of the treatment, which, though in writers on Indigestion it has obtained little attention, is yet considered by many physicians as much the most interesting & important. To undertake a thorough cure of the disease without paying attention to diet, is not only to waste our time & trouble, but also to do the patient a most serious injury. By a proper regulation of food, we remove a permanent cause of derangement in the stomach, and leave that organ, by its own natural power, to regain the condition from which it had been forcibly withheld. Under this head, however we embrace the consideration, not merely of solid, but also of liquid aliments, and of all other substances, which, without containing much if any nutriment, are commonly placed upon the tables of our country. ~~Coffee, tea~~ Coffee, tea, the various condiments, the fermented liquors &c. are among the articles included in the general term of Diet. In considering a subject so extensive, it will be proper, for the sake of avoiding confusion, to make some general division; and none strikes me as more eligible than that which ranks the several articles of Diet under the 2 heads of solid & liquid. Each of these will almost necessarily encroach more or less on the other; an objection, however, to which any other division is equally liable.

(a) Solid aliment. Though we are unable accurately to determine what circumstances give rise to the different degrees of facility with which the various kinds of aliment are digested, yet with this much we are acquainted, that the facility is, for the most part proportionate to the quantity of nutriment afforded. Hence it is allowable to say in general terms, that animal matter is more easily digested than vegetable, and consequently better adapted to persons labouring under Dyspepsia. But between the different kinds of animal food, there is almost as much difference as between this & vegetable. The old is preferable to the young, the wild to the domestic, and the fresh to that which has been dried or salted. Venison, beef, mutton, and the white flesh of poultry are the meats which best agree with a debilitated stomach. Of the great family of fish none but the ~~fo~~ oyster deserves to be ranked among those aliments which are derived from fowls & quadrupeds. Veal, pork, salt meats of every kind, clams, lobsters, fish, and those fowls whose flesh is dark are inferior to the substances above enumerated, & should be employed only when the others can not be obtained. - There are certain products of the animal Kingdom which have not yet been noticed; but which, from their forming so great a share in the diet of every one, are highly worthy of our attention. Eggs, butter, cheese, liver, sausages &c, are the articles to which I allude. - Perhaps there is no other product ~~derived~~ either of the animal or vegetable Kingdom, more easy of digestion, & better calculated to sooth an irritable stomach, than the one first mentioned. Eggs, however, if we wish to obtain their full advantage, should be swallowed raw, or at least in a soft state. - I do not recollect ever to have heard whether ~~liver~~ liver was useful in Dyspeptic cases; but judging from my own experience, & from the texture

of the glandular substance, I should decide in the affirmative. – Of butter, cheese, sausages &c. little can be said in commendation. I knew a family who were in the habit of using the first to a great extent, of whom almost the whole were affected with indigestion in one way or another. Cheese when very old may be useful in Dyspepsia as a condiment, but never as an article of food. Sausages, & their kindred preparations, should be entirely excluded. Of milk I will speak under the head of liquids. ——— With regard to vegetable aliment, – a very few remarks will embrace whatever is worthy of notice. All the fresh vegetables, the whole tribe of melons, and all the fruits of our country should be excluded from the diet in Dyspepsia, especially if we wish it to be strict. An exception, perhaps, may be made in favour of the Irish potatoe, which, when dry & mealy, partakes very much of the nature of the farinaceo. The different grains, as wheat, rice, Indian corn, rye, buck-wheat, ~~and the~~ barley, &c. are superior to the fresh vegetables; but are far behind ~~those~~ the products which we obtain from the animal kingdom. Wheat and rice are the best in the catalogue, and of these the latter should be preferred.

But merely to mention the articles which should constitute the diet of a Dyspeptic patient, without detailing the methods of preparing them, would be to collect the materials & never to erect the edifice. It is, in fact, as much the business of a Physician as of a Cook, to be acquainted with the manner in which food should be prepared; with this great difference, however, that the object of the former is to judge what mode is best calculated for the health of the patient, while to gratify the palate is the sole design of the latter. Of the several methods of cooking meats, roasting or broiling is the least exceptionable, baking is

superior to boiling, and frying is, without exception, the worst. What renders the last even more unwholesome than it otherwise would be, is the crust with which meats cooked in this way are generally enveloped. The crust which surrounds beal-cutlets and fried oysters is one of the most indigestible articles of Diet that can be brought on the table. Broth, another mode in which meats ~~any~~ are ~~may~~ often prepared, though by many it is thought to be of easy digestion, is in fact very much to the contrary. There is, however, a liquid made from the flesh of animals, than which nothing can be better adapted to a debilitated stomach. The essence of beef, mutton &c. concentrates in a small space all the nourishment contained in a large portion of meat, & may, indeed, be considered as almost purely nutritious. Seasoned with pepper or some other spice, it is by no means unpleasant to the palate; and nothing better could possibly be given to a person whose stomach is extremely delicate. - There are ~~[illegible]~~ some substances which, instead of being rendered better by any process of cooking, are always injured; & should, therefore, be swallowed raw. Oysters & eggs are those to which I more particularly allude. Either of these in its natural state is as well adapted to a weak stomach, as, when it has undergone certain culinary processes, it is injurious. Oysters stewed almost to nothing, and eggs boiled hard bear as little resemblance to the same articles in their previous condition, as the glue of the ~~sp~~ shops, does to the calf's-foot jelly which is sold at the confectioners. - Meat-pies of all kinds should be excluded from the Diet for Indigestion; for, though the flesh is not, as far as I know, injured by the process of baking or stewing, yet the ~~cru~~ crust, saddened by the juices which have penetrated it, will never agree with a person who has any claim to the title of a Dyspeptic. Indeed, pie crust of every kind is extremely pernicious. Why the

addition of a little lard or butter to flower renders it so much more difficult of solution in the gastric juice, I am at a loss to determine. The small quantity ~~of these~~ which is employed, renders it probable that the increased difficulty is not owing merely to the presence of these substances in an uncombined state, but to some chemical change effected by their agency. The same difficulty occurs in accounting for the circumstance that fermented bread is not so easily digested as crackers, or bread without ferment. The fact, however, is well established, and, when we recommend a proper Diet to a dyspeptic patient, should always receive our attention. I have mentioned that wheat, rice, and Irish potatoes might be used moderately in this disease. The manner of preparing ~~it~~ them is almost as important as the cookery of animal food. All those preparations of wheat flower which are made by the addition of ~~flower~~ lard or butter, as ~~pay~~ pastry, short-cake, butter biscuit &c; together with such as are heavy or soddened, as puddings, dumplings, and bread not well baked, should, as much as possible be avoided. Even fermented bread should be employed only after it has become somewhat stale, and has lost that tenacity which it generally possesses when entirely fresh. By toasting the bread we overcome this property, and render it more suitable ~~for the Diet~~ to form a part of the Diet which we are endeavouring to indicate. But crackers are, without exception, the most suitable preparation of wheat-flower which can be resorted to. Rice should be boiled, or, if made into a pudding, the butter should be omitted. Potatoes ought always to be roasted. ——— Of the use of condiments with food little need be said. They are generally such articles as are calculated to stimulate the stomach, without exciting it too highly, or without causing much succeeding exhaustion. Their employment,

therefore, must be useful in many cases of Dyspepsia.

(b.) Liquids. Of the great variety of drinks in common use, very few should be allowed to enter into the regimen which we ought to prescribe for patients afflicted with this disease. The pernicious effects of coffee & tea are so well known to every one who is at all acquainted with medical subjects, that philippics against their employment in Indigestion have become almost as trite among Medical men, as declamations against tyranny among politicians. But the patient is not content with being informed that these articles are injurious. By long habit he has become fond of them, and, unless some substitutes can be offered, will not easily be induced to lay them aside. Such substitutes, however, may be found, and should always be resorted to. By boiling rye till the grain has burst, & then drying & burning it in an oven, we have ~~again~~ a preparation from which a beverage may be made little inferior to coffee in flavour, & far less noxious in its operation on the stomach. Chocolate also, when made as recommended by Dr. Chapman in his lectures, is grateful to the palate; and, without causing head-ache & sickness which are objected against it when prepared in the usual way, will fully supply the place of tea or coffee. But the liquid which, perhaps is the best substitute that can be adopted is Milk. This, at the same time that it agrees remarkably well with the stomach, serves also for nourishment, and will support the patient though he use no other aliment. Indeed, Dr. Chapman informs us in his lectures, that by confinement to a Diet exclusively of milk, cures have been effected without resort to medicines. If it should disagree with the stomach at first, this, he observes, is owing to the novelty of the impression, & after 3 or 4 days no unpleasant effect will be experienced. Few patients, however, would be willing to submit to a diet so rigorous. There

are some preparations of milk which possess all its advantages, and might serve for a change when the milk itself has become disagreeable from its continued use. Cold Custard, consisting of curdled milk with the addition of some wine, sugar, & nutmeg, might often be used for a dessert instead of pies or fruits. The coagulation of the milk will not be advanced as an objection against it, when it is considered that the same process takes place in the stomach, and that we are only anticipating an event which must otherwise have been brought about by the operation of nature. Rice-milk sweetened with sugar is another form in which that food may be taken with advantage.

— Porter, ale, and beer are drinks in common use, and seem to ~~be~~ produce very different effects on different patients. There are some with whom porter, others with whom ale agrees very well; but there are many to whom either of them from its aptness to become acid in the stomach, should be absolutely forbidden. Beer & Cider, I believe, from the same cause, are almost always injurious. Old Madeira or Port Wine may be sometimes allowed, where there is no danger of its being abused. Brandy & Water is a dangerous indulgence, and, though moderately used it may be of advantage, is yet too liable, by affording temporary relief to the tortures of a disordered stomach, to induce a habit of intoxication, which any repentance & consequent resolution will be unable to break. No drink in which distilled spirits form an ingredient should ever be prescribed. — Vegetable acids, in warm weather, are often drank in combination with water; but, for an obvious reason should not be allowed in Dyspepsia. Of Broths I have already spoken. I do not recollect any other liquid which is worthy of notice on the present occasion, and shall therefore conclude my remarks relative to this subject. Having, then, detailed all the important articles ~~of food~~ of the regimen ~~of~~ adapted to Indigestion, and related briefly the manner of preparing them, I have nothing more

to say under the head of Diet, than to indicate some general rules which should guide us in its management. —

(c.) General Rules. (1.) I have already stated, while treating of the causes of Indigestion, that distention of the stomach is apt to produce this complaint. It follows, therefore, that the patient should avoid eating much at a time, and should be careful not to drink largely either at meals or on other occasions. It is a great objection against the employment of salt meat, that it induces thirst, & an extravagant use of drinks. —

(2.) A 2nd. rule no less important than the 1st. is founded on the circumstance that the stomach when unoccupied is always doing mischief. A dyspeptic patient should eat often during the day, and should even be waked in the night to take food. On the supposition (which I before advanced) that a superabundant quantity of gastric liquor is secreted in some cases, a deficient in others, the reasons for adopting this mode of eating are obvious. In the one case by frequently swallowing food, we shall employ the gastric juices, and hinder it from irritating the empty stomach; in the other, by the same means, we shall be in less danger of offending the internal coat of that organ, & consequently of exciting vomiting, than if we were to throw in at one time a quantity of aliment too great for the deficient gastric liquor to ~~many~~ manage.

(3.) If it is true, in some instances, that by the custom of using an article of food at first disagreeable, we at length become extremely fond of it; it is no less true in others, that by confinement to an article at first agreeable, we may acquire for it not only a dislike, but even an unconquerable disgust. This is particularly the case with dyspeptic persons, and arises probably from an association of the ~~article~~ food with the unpleasant feelings occasioned by the disease under which they labour. In such

instances we should so vary the Diet, as to leave no possibility for the patient to become disgusted; for in Dyspepsia the imagination has great influence over the digestive function, and if any disagreeable association be formed, it will produce as unpleasant an effect on the stomach, as though the article taken were in itself of difficult digestion.

(4.) Often the appetite is extremely poor, and we can hardly prevail on the patient to take food of any kind. Here great care is necessary to avoid giving offence to the stomach, which resembles an irritable temper, that not only resents the slightest appearance of disrespect, but even finds insult lurking under the greatest show of deference & friendship. To a man with such an appetite nothing can be more offensive than the sight of loaded dishes, or even than the odour arising from victuals recently cooked. Hence in giving him food we should ~~present~~ allow only small quantities at a time, and these, that they may not hurt ~~&~~ his sense of smell, should be presented cold.

— Having now ~~completed~~ finished whatever observations occurred to me as worthy of notice relative to Exercise & Diet, I proceed to the 3rd division of the 1st general head; viz. to the consideration of the methods by which we may remove those attendants of Dyspepsia that serve to aggravate & protract the disease. —

3rd. <u>Attendants of Indigestion</u> — Nothing is more true than the fact, that, when the stomach has been affected with Dyspepsia, it occasions a variety of secondary disorders, which, though consequent upon the primary disease, have, nevertheless, a powerful reaction on the stomach itself, and thus produce effects exactly similar to those which follow the operation of extraneous causes. Of this kind are, 1st. those collections of vitiated secretions & undigested food which are called crudities; 2nd. acid in the stomach; 3rd. Costiveness; & 4th. a

Dejected Mind.

(1.) I can very well conceive, that the vessels of a disordered stomach secrete a fluid, which may irritate the internal coat, and therefore require to be removed. Indeed, the scalding eructations that occur in some cases of Dyspepsia are a proof of its existence. Here emetics are indicated. But a frequent repetition of this class of medicines, is apt to produce the very disease which we are endeavouring to conquer, and they should, therefore be used as seldom as the nature of the case will admit. Another instance in which an emetic may be resorted to, is when the patient, to gratify the craving appetite which sometimes accompanies the disease, has imprudently devoured a great quantity of indigestible food, and has consequently occasioned much pain & oppression in the region of the stomach. In the commencement of the treatment it is recommended by Cullen to excite vomiting for the sake of removing crudities. But that crudities always exist in the stomach when the physician is first consulted, is a statement that will admit of much doubt. Dr. Chapman gives a far better reason for this practice, when he says that emetics produce a revolution in the action of the stomach, and thus give the first impulse towards the restoring of its healthy operations. Cures, however, in the great majority of cases may be effected without them; and in those only which are very severe, and require a sudden & powerful impression, would I, on the principle of the Professor of practice, excite vomiting in the beginning. When an emetic is indicated ipecacuana, both from its celerity & mildness, is to be preferred over every other.

(2.) Acid in the stomach, whether occasioned by the fermentation of the foods, or by a diseased secretion, is productive of very disagreeable symptoms; and, as long as it remains, must aggravate the sufferings of the patient, and render the primary disease more difficult of cure. Its removal, therefore, should be effected as soon as possible. The best method of accom-

plishing

so desireable an end, is to employ such medicines as may chymically unite with the acid, & form a neutral mixture. The absorbents are numerous, and, independent of that quality which characterizes the class, are possessed of various others, by which they are calculated for answering different & even opposite indications. Of this circumstance we should avail ourselves. When together with acidity of the stomach, it is desireable to remove costiveness also, the magnesia, on account of its laxative property, should always be preferred. On the contrary, if diarrhoea is an accompanying symptom, the chalk-mixture is the most appropriate remedy. When the stomach requires a tonic impression, we may employ the carbonate of potash or soda; thus causing at the same time an absorption of the acid, and ~~an~~ the extrication of a gas, than which nothing is more cordial to the debilitated organs of digestion. When there is much sickness, and the patient finds great difficulty in retaining his food, no absorbent is so well calculated to meet the indication as lime dissolved in water; & if this solution be united with new milk in equal proportions, & a table-spoon full be given every hour during the day, we shall, at the same time, remove the acid, correct the sickness, & afford nourishment in the most appropriate form. —

(3.) There are few causes which act more powerfully in protracting Dyspepsia than Costiveness; but to overcome it we should never resort to a frequent use of the stronger purges. Laratives are here the proper medicines, and the best of these is the combination of magnesia and sulphur as recommended by Dr. Chapman. In those instances where sugar or molasses do not become sour in the stomach, would it not be advantageous to conjoin them with the other articles of Diet, and thus by the same means overcome the costiveness & afford nutri-

ment

to the body? We should strongly enjoin it ~~on the~~ upon the patient, daily & at a particular time, to solicit evacuations, even though there may be no immediate impulse. In almost every operation of the system we are more or less under the influence of habit; and in few instances is the power of this principle more displayed, than in the one under our notice.

(4.) Of those symptoms of Dyspepsia which assist in prolonging the disease, the last that I shall have occasion to mention is dejection of mind. This is often a primary cause of Indigestion; but it still oftener occurs as a consequence of that complaint, and therefore I have chosen to speak, in this place, of the proper methods which may be employed to dispel it. If the patient is merely low spirited, without having contracted any strong prepossessions, we should endeavour to enliven him by assurances of a speedy cure; & should inspire him with confidence in our abilities, by explaining the operations of the medicines, and relating examples of our success. Sometimes ridicule may be useful: but often the feelings are so irritable that this would be a dangerous resort. Acute pain, by turning the attention into another channel, may, perhaps, occasionally be serviceable; and on this principle is it that blisters sometimes exhilarate the spirits. But, without exception, the most efficacious method is to send the patient on a journey to some fashionable watering place, where the variety of occurrence, and the necessity of using mental exertion, independent of the exercise, & the tonic powers of the chalybeate waters, will often prove eminently beneficial.

— But when the patient has been seized with some hypochondriac notion, as that he is dying of a mortal complaint, that he is already dead, that enemies are conspiring his ruin, or some other of the same kind; and obstinately persists in maintaining his belief, we should humour the conceit, & by some suitable contrivance endeavour to make such a powerful impression on his mind, as may rouse him from his delusion, & create a complete revolution in the train of

his reflections.

II. The means of restoring tone to the stomach.

Hitherto we have been directing our attention to the removal of those causes, which operate in the production & continuance of Indigestion. We have been clearing the path of Nature, & giving her full opportunity to exert her own powers in mounting the steep ascent to health: but often she has been so weakened by the shackles which disease has imposed upon her, that extraneous assistance is necessary ere she can gain the summit. Our purpose, at present, is to point out the correct methods of affording this assistance. The means of restoring the stomach to its healthy condition, after the causes of disease have been done away, are such as act either directly or indirectly on that organ.

1st. The remedies which act directly on the stomach are appropriately denominated medicinal, and produce either a powerful, but evanescent impression; or one slight in degree, but permanent in duration. Of the medicines belonging to the first class, Spirituous liquors & Opium are those only which it is necessary to particularize; & of these we need say no more, than what may serve to guard against their employment. They are, indeed, the greatest enemies to which a person afflicted with Dyspepsia is exposed: for, though they alleviate, for a moment, the torture of the mind & the pains of the body, yet the benefit is transient, the evil great & lasting. We may, indeed, say of them, what Cicero applied to the wicked Spirits; — "Malus bonum cum simulat tunc est pessimus, et hostium munera insidiae sunt." — Death has not unfrequently been the consequence of these articles, prescribed in the first place as medicines. To the Tonics then we should always resort when the use of remedies immediately affecting the stomach becomes essential.

Of these there is an immense variety, derived both from the vegetable & mineral kingdoms; but it is my design to notice those only which have attracted most attention, and are best calculated to effect the desired end.

(1.) Tonics from the vegetable kingdom. The sensible qualities which characterize this order are bitterness, and aromatic pungency, sometimes seperate, but often combined in the same article. The pure aromatics approach nearer than the bitters to the class of stimulants, and are not therefore so permanently beneficial. Some, however, are employed in Dyspepsia with advantage; and nature, by planting them in a climate where complaints of the stomach and bowels are extremely prevalent, seems to have pointed them out as appropriate remedies. Ginger is, without exception, the best of the aromatics, & frequently proves serviceable in cases of a debilitated stomach. The modes of administering it are various. By mixing ginger-sirup with soda-water, we may obtain combined in a most delightful draught, the laxative quality of the sirup, the absorbent property of the soda, and the tonic power of the ginger & carbonic acid. It may also be taken in infusion or substance, either alone, or, what is preferable, in combination with some of the other tonics. - Cinnamon, Nutmeg, Orange-peel &c. are more or less useful in Indigestion, & may be prescribed as additions to the more powerful medicines. When thus conjoined, they are generally given in decoction or infusion, and serve to conceal in some measure the disagreeable taste, which is so formidable an obstacle to many a delicate palate. - The oil of anise, peppermint &c. may be employed as accompaniments of other medicines, especially when the patient is troubled with flatulence. - The purer bitters, Gentian, Quassia, & Columbo

are more efficacious than any of the preceding articles, & frequently are useful part in the treatment of Dyspepsia. They may be administered in infusion, decoction, or powder; but the tincture, for a reason already mentioned, should never be employed. The Extract of Quassia is a neat preparation, & is given in the form of pills. Hops in infusion are strongly recommended by Dr. Chapman, who informs us that he has experienced benefit from their use in very obstinate cases. The Peruvian Bark is not so much employed as some other tonics of inferior power. The Medicines above enumerated, according to the judgment of the Physician, or the fancy of the patient, may be variously combined with one another, or with the mineral tonics. —

(2.) Tonics from the Mineral Kingdom. The number of medicinal articles which may be ranked under this title, is little inferior to that of the vegetable tonics; — a list of them might be made to include almost every metallic preparation with which we are acquainted. I shall, however, content myself with naming a few of the most efficacious. Of the Carbonic acid I have already expressed my opinion. The other Mineral acids, especially the Nitric, Sulphuric, & Muriatic are possessed of strong tonic powers, & united with sugar & water, form a pleasant drink, which may sometimes be taken with advantage. But their property of corroding the teeth is very much against them, and, as long as we can have recourse to the Chalybeates, will be sufficient to turn the scale in favour of the latter. Indeed, the preparations of iron are almost the only mineral tonics which are much employed in Dyspepsia. The Carbonate or Rust of Iron stands, I believe, at the head of the list. Given in powder, pills, or solution; either alone or conjoined with other tonics, it has often been of great service in strengthening the debilitated organs of digestion, & will ever continue to hold a high rank in the estimation of practitioners.

Dr. Chapman, however, prefers the Sulphate, the use of which, in the form of pills, he calls the "neatest & most efficacious method of administering iron." The Muriatic tincture of iron is another preparation which deserves our highest consideration. The Mineral waters which are drank in such quantities at the various watering places throughout the United states are not deficient in tonic powers; & moreover, in some instances, possess a laxative property which renders them still more beneficial. – To enumerate the preparations of Copper, Zinc, Lead, Arsenic &c., although they all possess tonic powers to a greater or less extent, is wholly unnecessary; – for few of them are ever resorted to, and the acids, Chalybeats, & vegetable tonics already mentioned, are quite sufficient to answer every purpose that can be obtained from the use of this class of medicines. —

2 nd. Remedies which act indirectly on the stomach. Every one who is at all acquainted with the economy of the human system, knows that between the skin and Alimentary canal there is a strong sympathetic connection; so that by giving strength or tone to the one, we also communicate it to the other. Upon this ground is it that, in Dyspepsia, we recommend the application of articles slightly stimulating to the surface of the body; and also the use of such methods as may prevent the skin from exposure to irritating causes. The Cold-bath has long been employed in this complaint, and is of undoubted advantage. Rousing the languor of the cutaneous vessels, so often an accompaniment of Indigestion, it creates a glow over the surface, and causes the whole system, but more especially the stomach to feel its genial influence. The cold-bath, however, should not be employed when the patient is in a perspiration; for in such instances, the cutaneous vessels do not so easily recover from the

first shock, and the reaction, when it does take place, is not so healthy as where it succeeds only a moderate impression on the skin. The most suitable time for using the bath is just before the patient goes to bed; - as then the excitement which it produces, is not interrupted by any of those causes, to the operation of which, during the day, almost every individual is liable. Another reason for preferring this time of employing the bath, is, that by its operation, the irritable nerves of the patient are tranquilized, and sleep of consequence more easily induced. — Another method of exciting the skin is the use of the flesh-brush. This may, perhaps, be attended with some advantage; but, on account of its partial operation, I should always consider it as inferior to that which has just been claiming our attention. — The wearing of flannel next the skin is a practice which the Dyspeptic patient should always follow. The flannel thus employed serves a two-fold purpose; by its texture it acts as a slight rubefacient, and by its property of conducting heat with difficulty, it maintains an equability of temperature which is of vast importance to the preservation of health. — As the feet, in Dyspepsia, are often habitually cold; and as the stomach sympathizes with every part of the skin, the employment of woolen stockings is plainly indicated. If these alone are not sufficient to keep up a due degree of action and consequent warmth, they may be slightly sprinkled over with cayenne-pepper, or some other stimulant of a similar nature. — Under the head of remedies acting indirectly on the stomach may be ranked blisters to the surface. These, I have no doubt, will often prove advantageous in Dyspepsia, by creating an action externally which may be extended to the stomach by continuous sympathy,

as the circles made by throwing a stone in the water, spread to a great distance on every side; and as the boundary of these ~~circumstances~~ circles is more strongly marked, the nearer it is to the central point, so does the blister produce an effect on the stomach greater in proportion to its proximity; & consequently is most advantageous when applied to the epigastrium. But to prove effectual, it must be so frequently repeated, and cause so much inconvenience to the patient, that I would not prescribe it, unless in cases which had resisted for a long time all milder treatment.

All that now remains to be accomplished, is to say a few words relative to the removal ~~to~~ of Cardialgia, Pyrosis, & Gastrodinia; of which we have already spoken as Associates of Indigestion. The first, depending upon acidity in the stomach, is to be removed by those medicines which are calculated to do away the cause. Pyrosis, when it accompanies Dyspepsia, is to be conquered by attacking the root of the tree to which it is attached; and almost always disappears under the use of that treatment which we have just been describing. There is, however, a medicine which is said to be peculiarly adapted to the treatment of Pyrosis & Gastrodinia; and as such has been highly recommended by several European & American physicians. The sub-nitrate, or, as others call it, the white oxide of Bismuth is the medicine to which I allude. It is given in the same dose with the carbonate of iron, and is probably very similar to that chalybeate in its action on the system. — In the treatment of Gastrodinia, a remedy introduced into

regular practice by Dr. Physick, has obtained an extensive reputation. What advantage a ley made from hickory ashes ~~& soot~~ with the addition of a little soot, has over the carbonate of potash which forms the most active ingredient, we must leave to the decision of those who have experienced the effects of both. A priori we should suppose that there could be very little difference; but the observation of practitioners is against us. — At any rate the remedy has accomplished one brilliant cure the importance of which gives dignity to its reputation; and a ley made from hickory-ashes & soot will be remembered with thankfulness, as long as surgical abilities properly exerted shall claim the gratitude of mankind.

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To the plan of treatment which I have laid down, the most obstinate cases of Indigestion will hardly ever fail to ~~yield~~ yield. In those instances, however, where the disease depends on a morbid affection of some one of the viscera, the original complaint must be done away, before the patient can ~~be~~ experience a cure: for we cannot divide the chord of sympathy; and, as long as ~~any place to which~~ it retains a place of attachment, the disorder which it supports ~~will~~ must inevitably continue. — I have now accomplished the task, imposed on me as a candidate for the honour of a degree in the Medical department of the University. I have completed an account of the causes, symptoms, and treatment of Indigestion; and have at length emerged from the Labyrinth,

in the intricacies of which, if I have sometimes been bewildered, the only excuse that can be urged in my favour is, that I have not possessed the thread of experience to guide me.

Finis.